AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-265

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*** 2008 AMSAT Space Symposium and Annual General Meeting ***
*** October 24-26 in Atlanta, Georgia ***
**** Please see the AMSAT-NA Website for INFO ****
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ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

In this edition:
* South African SumbandilaSat Launch Likely By Year-End 2008
* Richard Garriott W5KWQ ISS Operations Will Include SSTV
* Increased Solar Illumination Allows AO-16 Operations to Continue
* Flight 4 of Falcon 1
* Welcome Aboard AMSAT-Indonesia
* ARISS Status - 21 August 2008

SB SAT @ AMSAT $ANS-265.01
South African SumbandilaSat Launch Likely By Year-End 2008

AMSAT News Service Bulletin 265.01
From AMSAT HQ SILVER SPRING, MD.
September 21, 2008
To All RADIO AMATEURS
BID: $ANS-265.01

South African SumbandilaSat Launch Likely By Year-End 2008

ITAR-TASS published a news item stating that the first South African satellite Sumbandila "is likely to be launched into orbit along with a Russian spacecraft Meteor-M at the end of 2008, said the head of the Federal Space Agency (Roskosmos), Anatoly Perminov.

"We are currently working toward adapting this cluster of satellite launch with the spacecraft Meteor-M, which will be launched this year." Perminov added that "in the near future to meet with experts from South Africa, perhaps even with the head of the South African Space Agency, to discuss the matter." According to Roscosmos, the South African side is ready to launch its first spacecraft to the new Russian launch vehicle Soyuz-2 ".

ITAR-TASS said that in return for launch services Russia will have the opportunity to place on the territory of South Africa a tracking station to receive f telemetry from upper stages of launch vehicles.

[Editor Note:] AMSAT South Africa has designed and built a control system to facilitate the following operations:

+ V/U voice transponder with an uplink in the 2 meter band and a
   downlink in the 70cm band.
+ A parrot repeater (voice digipeater)
+ A voice beacon

[ANS thanks ITAR-TASS for the above information]

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SB SAT @ AMSAT $ANS-265.02
Richard Garriott W5KWQ ISS Operations Will Include SSTV

AMSAT News Service Bulletin 265.02
   From AMSAT HQ SILVER SPRING, MD.
September 21, 2008
To All RADIO AMATEURS
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Richard Garriott W5KWQ ISS Operations Will Include SSTV

September 18, 2008
Silver Spring, Maryland

Richard Garriott, W5KWQ, to communicate with Students and Ham Radio Operators World-wide through the Amateur Radio Station on-board the International Space Station (ISS)

Through multiple agreements with NASA, the Russian Space Agency, RSC Energia, Space Adventures Ltd, and ARISS (Amateur Radio on the International Space Station), Richard Garriott will fly to ISS and will communicate with students, ham radio operators, friends, and family world-wide using the ARISS amateur radio station on-board the ISS.

Richard Garriott, with the amateur radio callsign, W5KWQ is the sixth private citizen to be flown by the Russian space agency to the ISS. A legendary video game programmer and designer, Garriott will be traveling to orbit this October and will speak with hundreds of students while thousands more listen in during a series of ten-minute ham radio contacts. His on-orbit stay on Soyuz and ISS is planned for October 12 through 22, 2008.

The locales for the worldwide student contacts include eight Challenger Learning Centers in the U.S., the Austin Liberal Arts and Sciences Academy in Austin, Texas, the Pinehurst School in Ashland, Oregon, the Budbrooke School in the U.K., and the National Space Challenge in Kuala Lumpur, Malaysia. Garriott also plans to have random chats with scouts world-wide as part of the amateur radio "Jamboree on the Air" which is planned for October 18 and 19.

"An important aspect of Richard Garriott's mission is to encourage students' interest in science and technology through the amateur radio contacts," said Rosalie White, ARISS International Secretary-Treasurer and ARISS Program Manager for ARRL (American Radio Relay League). "ARISS team members from all over the world volunteer their time every day so that students receive opportunities that we hope will cause them to study harder and learn more about any educational subject."

The connection from the ISS to individual student locations will be established through an amateur radio station set up directly at the school or through the ARISS network of worldwide amateur radio ground stations utilized to link Garriott directly with students. The amateur radio system works similar to the way mission control centers in the

United States and Russia talk to their space explorers.

To date, the ARISS international working group volunteer team has conducted over 360 school contacts with crew members using ham radio on the ISS. The team has also set up radio contacts for family members of space explorers via ham radio. And have enabled countless contacts between the ISS crew members and hams on the ground. All previous Space Adventures private citizens who have flown to ISS have used the ARISS equipment to talk to school students, ham radio operators and friends and family.

As part of Richard Garriott's science investigations, he will be taking highdefinition photographs of many parts of the Earth and comparing them to photos taken on previous space missions. In conjunction with his Earth science investigation, Mr. Garriott is flying special amateur radio electronics that will enable him to send and receive low resolution images from space, comparable to cell phone images. Through this ham radio system, called Slow-Scan Television (SSTV), Garriott will beam down images of the Earth to schools and ham radio operators on the ground so that they can actively participate in his mission.

Frank Bauer, KA3HDO, ARISS International Chairman and AMSAT Vice President for Human Spaceflight Programs, states: "The ARISS team is quite excited about Richard's flight. He is very interested in bringing the wonders of space to those of us on Earth and he sees amateur radio as a great mechanism to make that happen. Through his school and scout voice contacts, his SSTV image downlinks and his communications with the world-wide amateur radio community, we see his mission as being "action packed" from an amateur radio perspective."

Bauer continues, "What is extra special is that Richard Garriott's flight coincides almost 25 years from when his father, Owen Garriott, made history as the first ham radio operator to communicate with radio amateurs from space on the STS-9 Space Shuttle mission." Owen Garriott's call sign is W5LFL. Richard also hopes to link up with his father via amateur radio during his flight.

Currently, Mr. Garriott is finishing his final spaceflight preparations at the Gagarin Cosmonaut Training Centre (GCTC) located in Star City, Russia. His launch date is scheduled for October 12, 2008, with ISS docking planned for October 14 and undocking planned for October 22. Mr. Garriott was trained thoroughly to be a member of the Soyuz TMA-13/17S crew.

Since its first flight with Owen Garriott, in November 1983, Ham Radio has flown on more than two-dozen space shuttle missions, on the Mir Space Station and on the ISS. ARISS is the first and longest continuous operating educational outreach program to fly on the ISS. ARISS is an internationally-based working group, sponsored by the national amateur radio organizations and the international AMSAT (Radio Amateur Satellite Corporation) organizations from each country as well as the ISS space agency partners. In the United States, ARISS is sponsored by the American Radio Relay League (ARRL), the Radio Amateur Satellite Corporation-North America (AMSAT-NA) and the National Aeronautics and Space Administration (NASA). NASA's education office provides support to ARISS and guidance in the development of ARISS educational objectives.

The primary purpose of ARISS is to allow students engaged in a science and technology curriculum to speak with an astronaut orbiting the Earth on the International Space Station. Using amateur radio, students ask questions about life in space or other space-related topics. Students fully participate in the ARISS contact by helping

set up an amateur radio ground station at the school and then using that station to talk directly with the on-board crew member. Preparation for the experience motivates the children to learn about radio waves, space technology, science, geography and the space environment. In many cases, the students help write press releases and give presentations on the contact to their fellow students and to the local community. Through this hands-on experience, students are engaged and educated in the Science, Technology, Engineering and Mathematics (STEM) fields, and are inspired to pursue STEM-related careers.

For more information about amateur radio on the ISS and Richard Garriott's flight, go to:

http://www.ariss.org
http://richardinspace.com
http://spaceadventures.com
http://www.arrl.org
http://www.amsat.org
http://www.spaceflight.nasa.gov/station/reference/radio/index.html
http://dln.nasa.gov/dln/content/catalog/details/?cid=634
http://www.nasa.gov/mission_pages/station/science/experiments/ARISS.html

Scout Jamboree on the Air:
http://www.scout.org/jota

Frank H. Bauer, KA3HDO
AMSAT-NA V.P. for Human Spaceflight Programs
ARISS International Chairman

[ANS thanks ARISS for the above information]

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SB SAT @ AMSAT $ANS-265.03
Increased Solar Illumination Allows AO-16 Operations to Continue

AMSAT News Service Bulletin 265.03
From AMSAT HQ SILVER SPRING, MD.
September 21, 2008
To All RADIO AMATEURS
BID: $ANS-258.03

Increased Solar Illumination Allows AO-16 Operations to Continue

AO-16 Command Station, Mark N8MH commanded AO-16 ON and restored it to voice mode on September 15. Mark commented, "At the time of my message we are up to 30 hours of continuous uptime, which is a 'good thing.' Our predictions regarding sustained activities seem to be right on the mark. Recording your observations about AO-16 at http://oscar.dcarr.org/ has been, and will continue to be, very helpful to us."

It is possible that the transmitter will turn OFF; this requires some commanding to get it running again, which means a pass over the Eastern US coast is required for a change in status. The command team is hoping that the bird will remain ON more often than OFF for the next several weeks.

Illumination projects (and subsequent temperature predictions) suggest that AO-16 might be able to sustain operations until early November. So, if you want some AO-16 contacts, you had better get them before then. After November 2008, it may be a long, long, time before the orbit provides favorable temperatures for the bird to remain operational for

more than a few seconds or minutes at a time.

Current operational mode for AO-16

Mode FM Voice Repeater (Downlink is DSB)
Uplink : 145.9200 MHz FM
Downlink 437.0260 MHz SSB

[ANS thanks Mark, N8MH for the above information]

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SB SAT @ AMSAT $ANS-265.04
Flight 4 of Falcon 1

AMSAT News Service Bulletin 265.04
   From AMSAT HQ SILVER SPRING, MD.
September 21, 2008
To All RADIO AMATEURS
BID: $ANS-265.04

Flight 4 of Falcon 1

As mentioned in my update last month, we do expect to conduct a launch countdown in late September - as scheduled.

Having said that, it is still possible that we encounter an issue that needs to be investigated, which would delay launch until the next available window in late October. If preparations go smoothly, we will conduct a static fire on Saturday and launch sometime between Tuesday and Thursday (California time).

The SpaceX team worked hard to make this launch window, but we also took the time to review data from Flight 3 in detail. In addition to us reviewing the data, we had several outside experts check the data and conclusions. No flight critical problems were found apart from the thrust transient issue.

Flight 5 production is well underway with an expected January completion date, Flight 6 parts are on order and Flight 7 production will begin early next year. We are now in steady state production of Falcon 1 at a rate of one vehicle every four months, which we will probably step up to one vehicle every two to three months in 2010.

--Elon--

[ANS thanks Lee, KU4OS for the above information]

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SB SAT @ AMSAT $ANS-265.05
Welcome Aboard AMSAT-Indonesia

AMSAT News Service Bulletin 265.05
   From AMSAT HQ SILVER SPRING, MD.
September 21, 2008
To All RADIO AMATEURS
BID: $ANS-265.05

Welcome Aboard AMSAT-Indonesia

Hakim Satar YB0AN, contacted AMSAT-NA President Rick Hambly W2GPS this week with the announcement that AMSAT-Indonesia has formed.

Rick replied, "Congratulations on the new AMSAT. I have added you
to the AMSAT Web site and included various AMSAT-NA mail groups
on this reply so everyone will receive the good news."

Two web links are available:
http://www.amsat-id.net
http://www.amsat.org/amsat-new/links/Asia.php

[ANS thanks Hakim Satar YB0AN, President AMSAT-Indonesia for
the above information]

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SB SAT @ AMSAT $ANS-265.06
ARISS Status - 21 September 2008

AMSAT News Service Bulletin 265.06
From AMSAT HQ SILVER SPRING, MD.
September 21, 2008
To All RADIO AMATEURS
BID: $ANS-265.06

ARISS Status Report for the Week of September 15, 2008

1. Upcoming School Contact - Status

The ARISS team continues working to schedule the next contact. Contact
approvals for the week have been delayed due to the closure of Johnson
Space Center, which was closed for Hurricane Ike.

2. Boy Scouts Contact Successful

On Saturday, September 13, Prairielands Council Scouts attending the
Space Jamboree at Chanute Air Force Base in Rantoul, Illinois partici-
pated in an ARISS contact with Greg Chamitoff, KD5PKZ. Telebridge station
WH6PN in Hawaii assisted with the contact. Thirteen Scouts were able
to ask 17 questions of the astronaut during the pass. Scout leaders
replayed the question and answer session later in the day for all 3,000
Scouts attending the Jamboree. The audio was fed into the EchoLink AMSAT
server and Internet Radio Linking Project (IRLP) Reflector 9010.
The News-Gazette printed a press release for the event:
http://www.news-gazette.com/news/local/2008/09/12/scouts_at_jamboree_set_to_
talk_with_space_station_astronauts

3. ARISS at Launchfest

On Saturday, September 13, the public was invited to Goddard Space
Flight Center in Greenbelt, Maryland to attend Launchfest. There were
plenty of exhibits and demonstrations of space related activities
including model rocket launches and space robots. The event also
celebrated NASA's 50th anniversary. ARISS members supported Launchfest
and distributed ARISS lithographs.

4. Garriott Prepares for Ham Radio Activities

Spaceflight participant Richard Garriott, W5KWQ, is scheduled to launch
on October 12 with the Expedition 18 crew. He plans to take part in
several ARISS activities while onboard the ISS. His activities include
speaking with children at Challenger Learning Centers throughout the
U.S. He mentioned his radio training in his recent blog. See:
http://www.richardinspace.com/index.cfm?fuseaction=blog.welcome&theyear=&the
month=&view=77#77

[ANS thanks Carol, KB3LKI, for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
Dee Interdonato, NB2F